

Regulatory Context for Wetlands Used to Treat Stormwater and Urban Runoff in California

By:

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Objectives

- Review primary laws
- Identify relevant language
- Identify agency policies
- Meet with agencies to:
 - *Discuss findings*
 - *Prepare regulatory overview document as resource for project proponents*

Primary Laws Reviewed

- Clean Water Act
- Porter-Cologne Act
- California Coastal Act
- Endangered Species Act
- California Fish And Game Code

Primary Laws Review - Findings

- Language in laws regarding:
 - *Protection of water quality*
 - *Protection of endangered species/habitat*
 - *Protection of existing wetlands (U.S./state)*

Primary Laws Review - Findings

- No language in laws regarding:
 - *Treatment wetlands*
 - *Constructed treatment wetlands*
 - *Use of existing wetlands for treatment*

Clean Water Act - Summary

- Section 303: Water Quality Standards and Implementation Plans
 - *Designated uses of water bodies*
 - *Criteria to protect designated uses of water bodies*
 - *Water quality antidegradation policy*
- Section 319: Nonpoint Source Management Programs
 - *Assessment of water bodies that cannot be expected to meet water quality standards without actions to control nonpoint sources of pollution*
 - *Preparation of a management program for controlling nonpoint sources of pollution and improving the quality of such waters*

Clean Water Act - Summary

- **Section 401: Certification**
 - *Requires certification that a proposed activity involving discharge to waters of the U.S. will not result in a violation of the water quality standards.*
- **Section 402: National Pollutant Discharge Elimination System (NPDES)**
 - *Requires a permit for the discharge of point sources of pollutants to waters of the U.S. attributed to construction and industrial operations.*
- **Section 404: Permits for Dredged or Fill Material**
 - *Requires permit for discharge of dredged material to waters of the U.S. for beneficial use as fill material.*
 - *Requires permit for discharge of dredged material to waters of the U.S. for disposal at approved disposal sites.*

Agency Policies - Examples

- U.S. EPA
 - *Guiding Principles for Constructed Treatment Wetlands, USEPA 2000*
- RWQCB (Region II)
 - *Resolution No. 94-102*
- SWRCB/CCC
 - *NPS Management Plan*
- CCC
 - *Procedural Guidance Manuals*

Guiding Principles for Constructed Treatment Wetlands

Providing for Water Quality and
Wildlife Habitat

U.S. EPA

October 2000



Overview

- Guidance addresses:
 - *Siting, design, and construction*
 - *Operation, maintenance, and monitoring*
 - *Regulations (federal permits)*
- Regulatory discussion on CWA
 - *Section 303 (Standards)*
 - *Section 401 (Certification)*
 - *Section 402 (NPDES)*
 - *Section 404 (Dredge and Fill)*
- Series of scenarios with questions and answers

Scenario 1

I'm planning to build 50 acres of constructed treatment wetlands for post-secondary wastewater treatment of my small community's municipal wastewater effluent. I anticipate that the wetland will provide high value habitat for wildlife and public use.

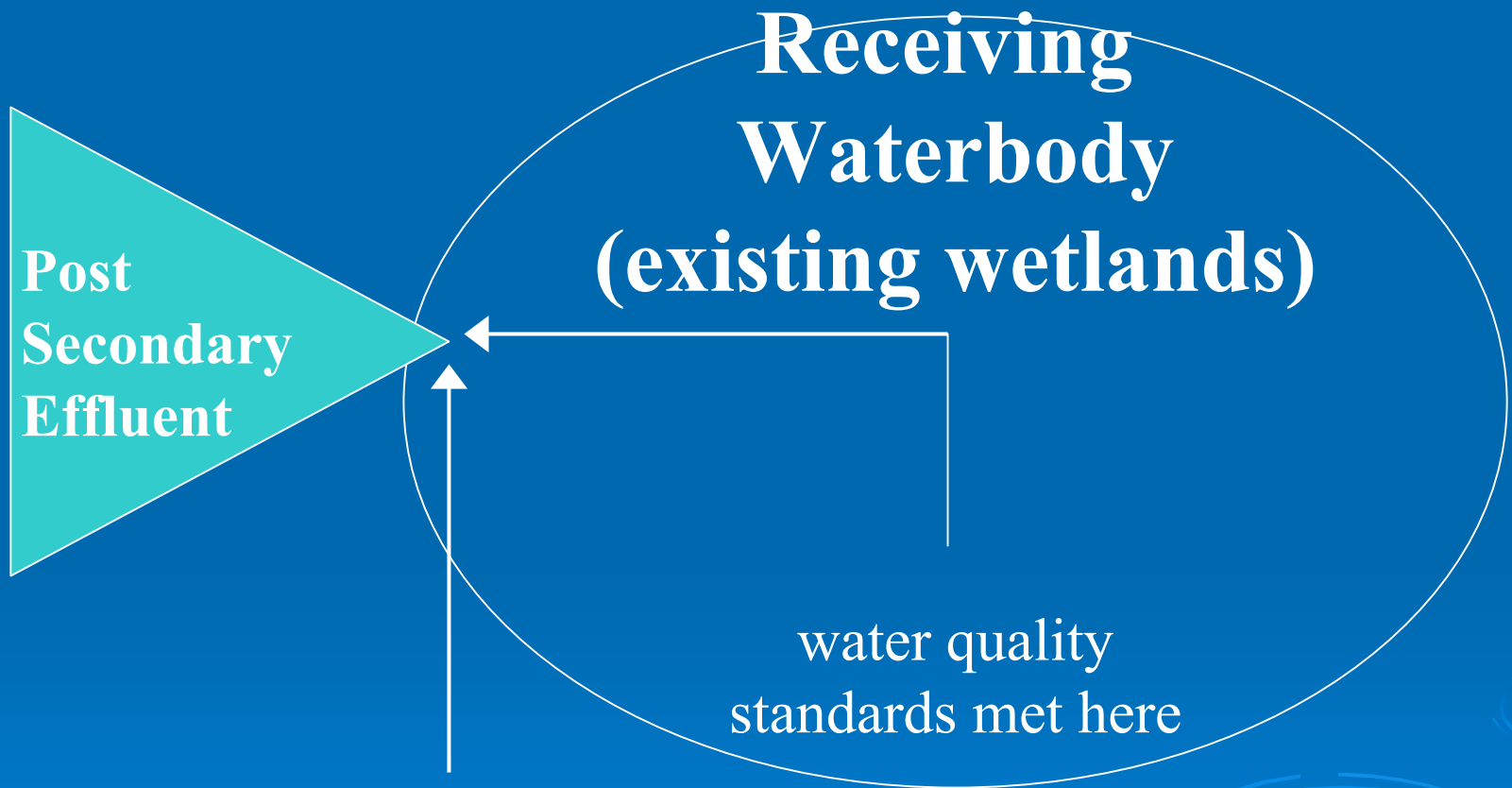
Question 1a And Answer 1a

- Do I need any permits?
- If your new constructed treatment wetland is considered waters of the U.S. or will discharge pollutants to waters of the U.S., you will need a CWA Section 402 (NPDES) permit at the discharge point.

Question 1b And Answer 1b

- Do water quality standards apply to my project?
- The permit requirements will be based on the applicable water quality standards for the receiving waterbody.
- There are three options as presented in the following figures.

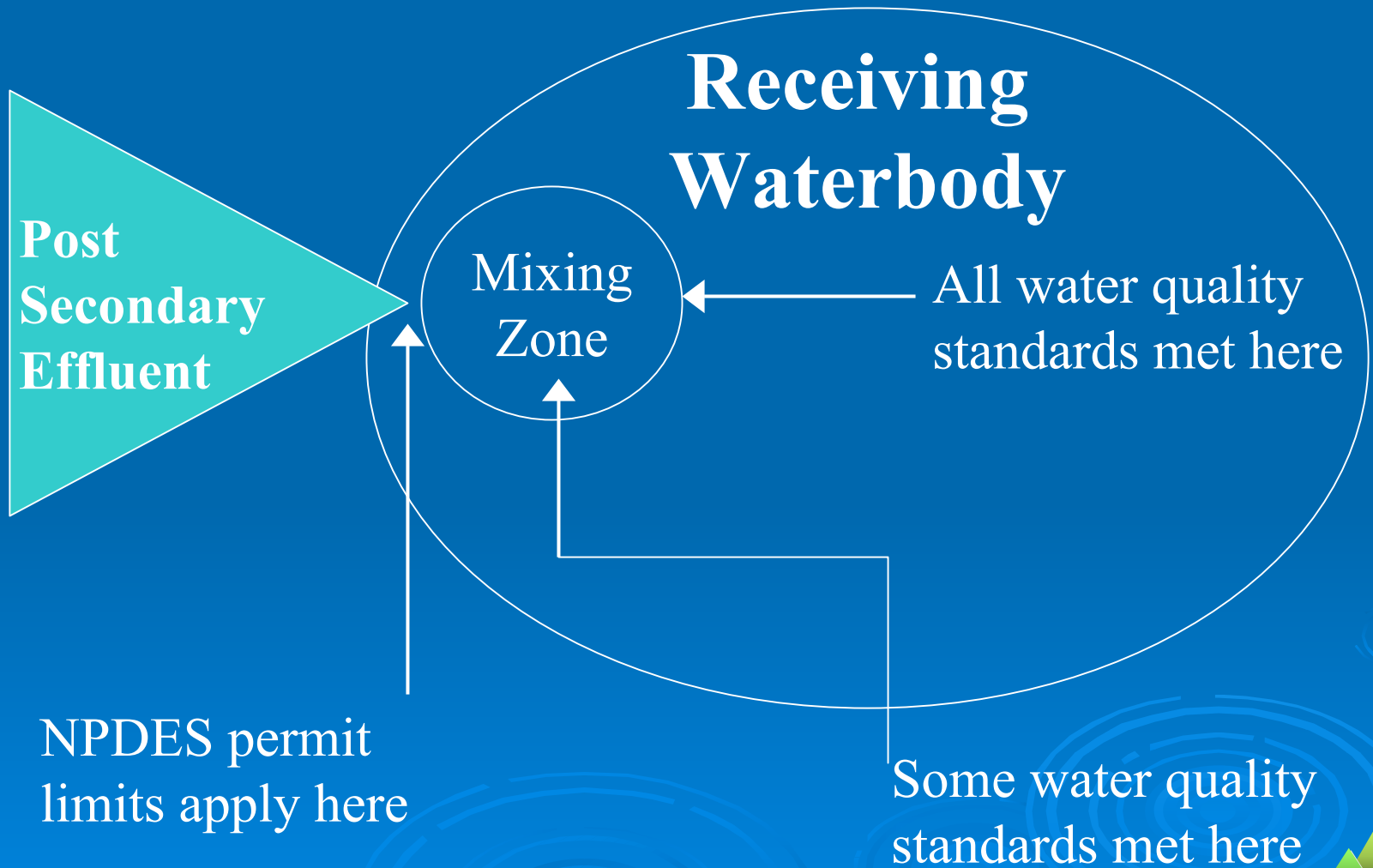
Option 1



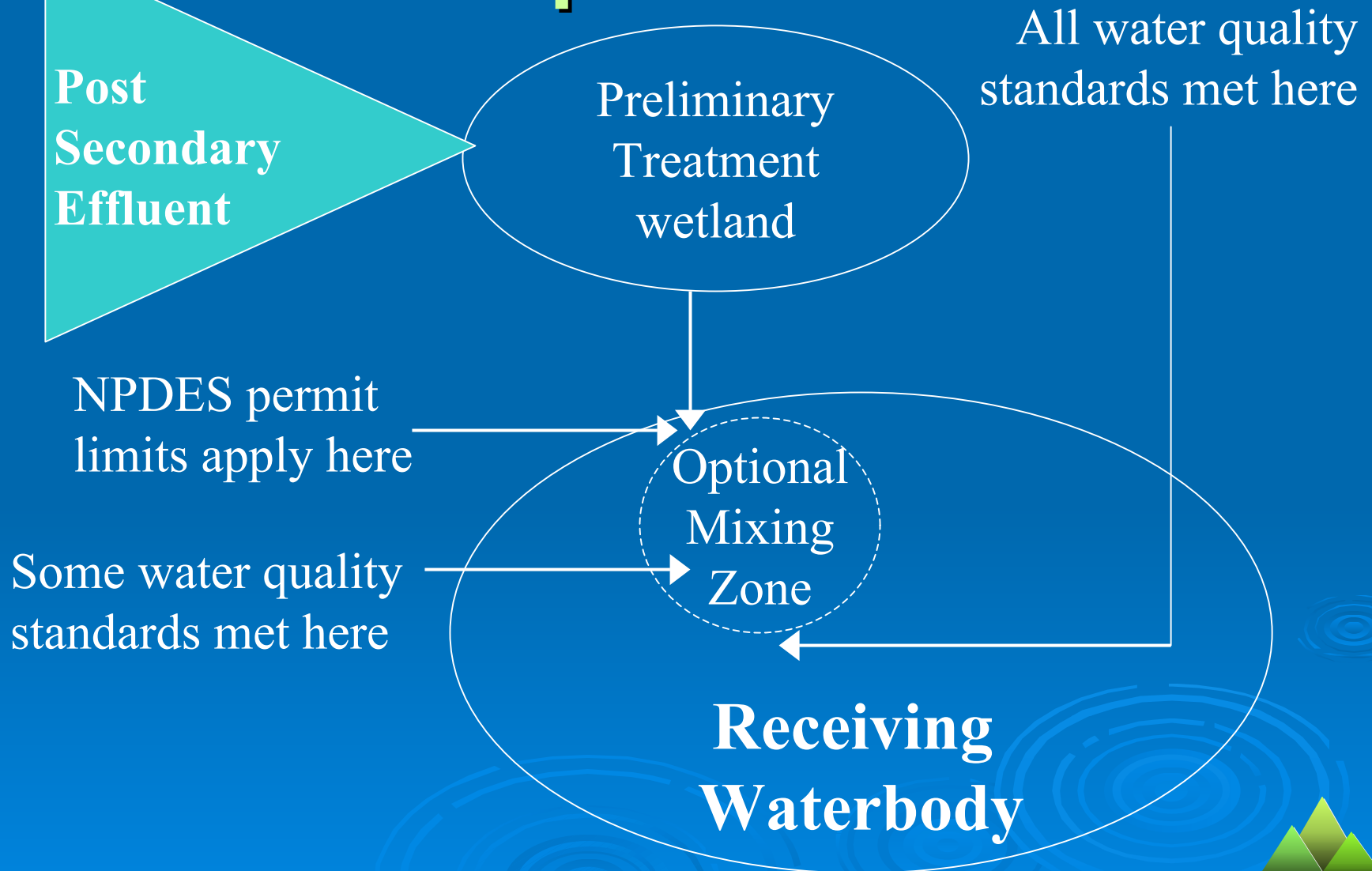
NPDES permit
limits apply here

water quality
standards met here

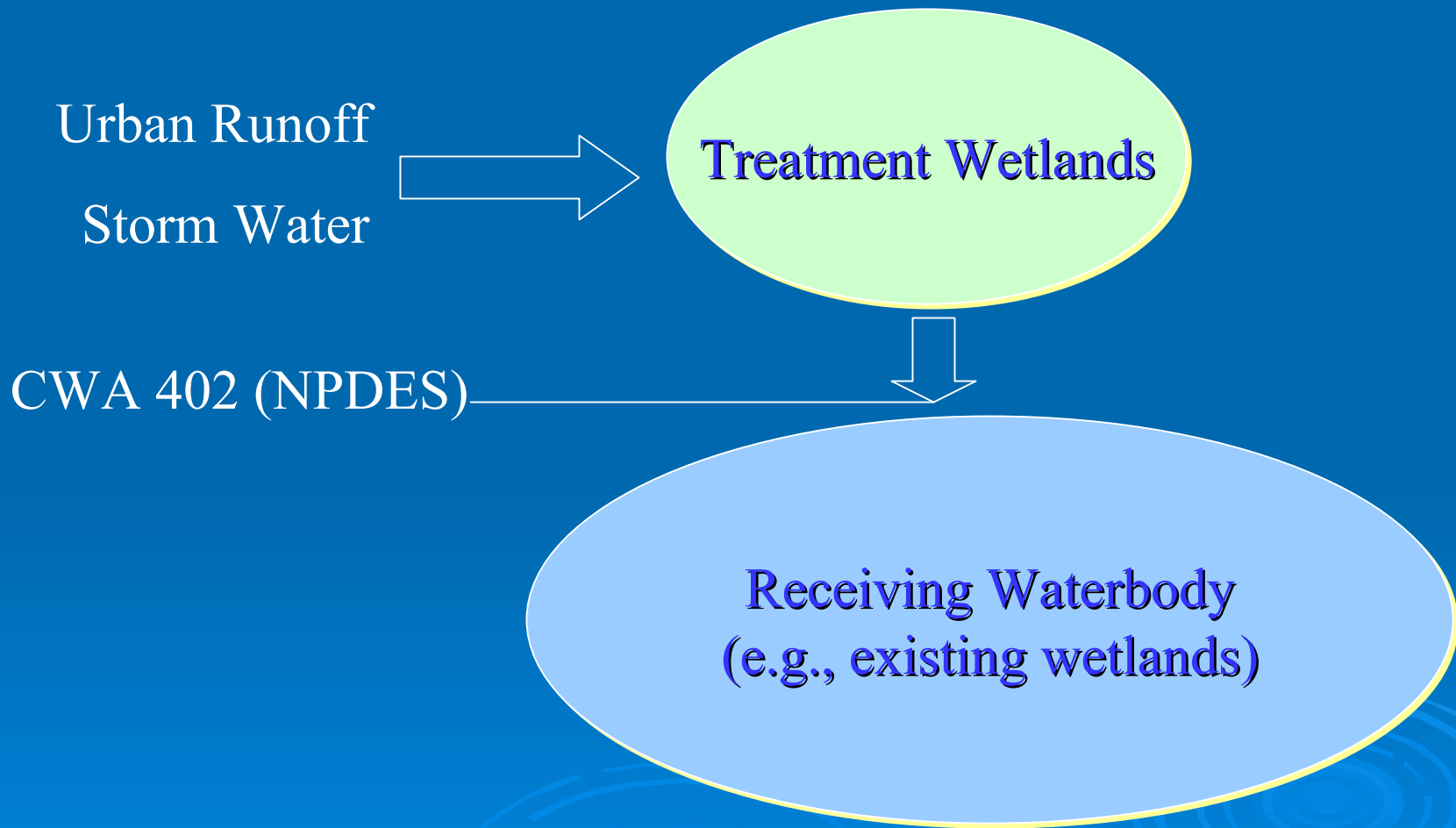
Option 2



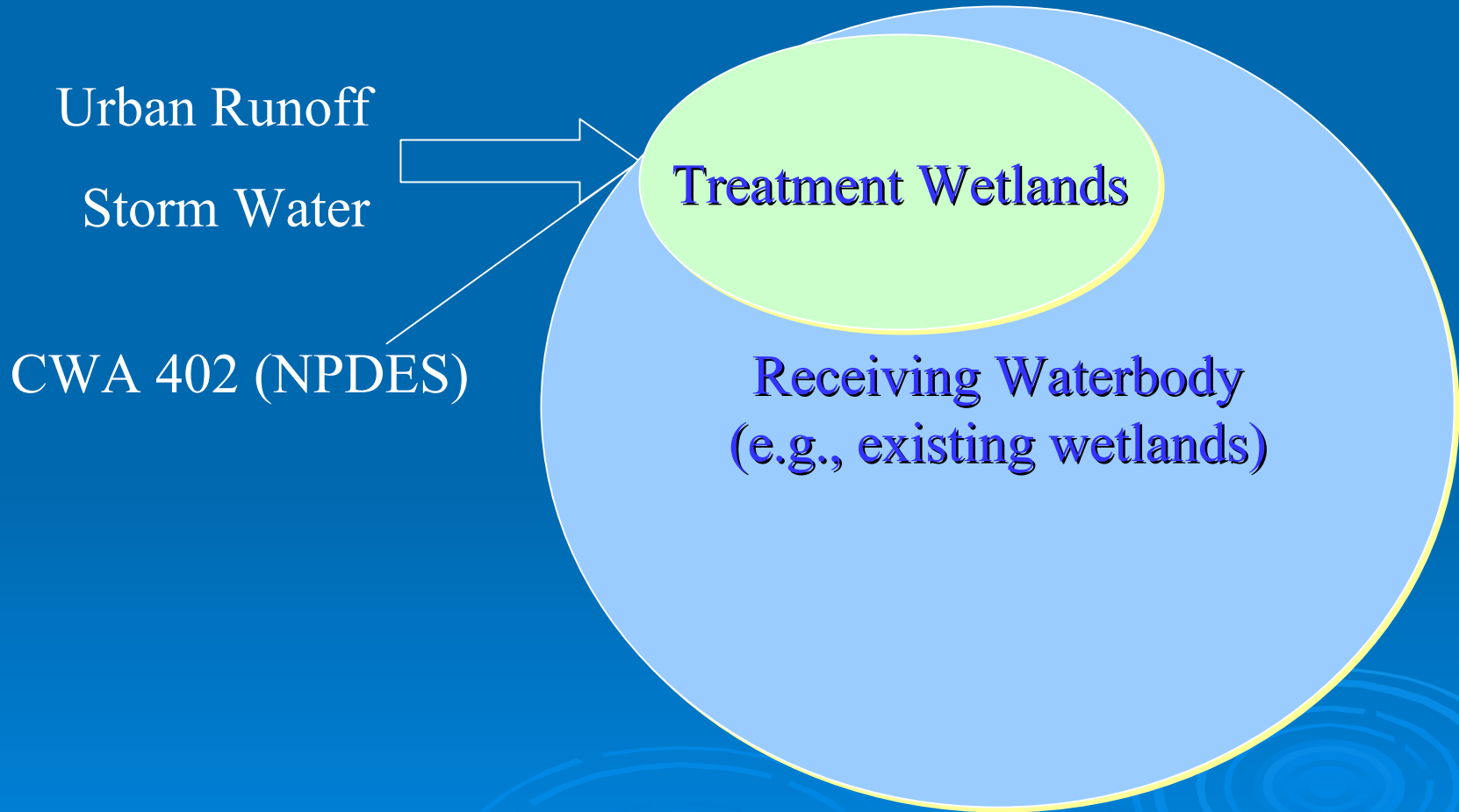
Option 3



Treatment Wetlands Outside



Treatment Wetlands Inside



Question 3

- Does my constructed treatment wetland become a water of the U.S. after it is no longer used as a treatment system?

Answer 3

- If the treatment wetland is a water of the U.S. then it will remain so after it stops being used as a treatment system.
- If the treatment wetland is not a water of the U.S. it may become a water of the U.S. if it has wetland characteristics and the following conditions apply:
 - It is an interstate wetland
 - It is adjacent to another water of the U.S. other than a water which is itself a wetland
 - It meets the interstate commerce requirements for an isolated intrastate water of the U.S.

Question 6

- I am considering using constructed treatment wetlands to treat my municipality's stormwater flows. What general issues must I consider?

Answer 6

- The treatment wetland should not be constructed in waters of the U.S. (e.g., natural wetlands) unless you can sufficiently pretreat the stormwater flows to protect the values and functions of the waters of the U.S.
- Because stormwater is an unpredictable effluent source and can contain high levels of toxic substances, nutrients, and pathogens, we strongly encourage that you construct the treatment wetland in uplands and use best management practices in these projects.

**RWQCB: San Francisco Bay Region
(II)
Resolution No. 94-102
Policy on the Use of
Constructed Wetlands for Urban
Runoff Pollution Control**

RWQCB

August 17, 1994



RWQCB II Policy

- Constructed or artificial systems
- No policy for existing wetlands
- May discharge to existing wetlands if:
 - *Discharge meets water quality standards*
 - *Beneficial uses maintained or enhanced*
- Existing wetlands protected under CWA
 - *Antidegradation from NPS pollution*

RWQCB II Policy (cont'd.)

- Constructed wetlands are treatment systems hence not waters of U.S.
- Constructed wetlands not operated or maintained may become waters of U.S.
- Constructed wetlands should not contribute to or intensify water quality problems or:
 - *Clean-up/discharge requirements might apply*
 - *Applies to receiving waters, including G/W*

RWQCB II Policy (cont'd.)

- Constructed wetlands shall be constructed separate from receiving waters
- Wetlands constructed within receiving waters are subject to CWA and Basin Plan
- Adequate land and management required to maintain treatment functions
- Nuisance and vectors must be controlled
- Monitoring required for ecological effects

RWQCB II Policy (cont'd.)

- Constructed wetlands may not be used for mitigation
- Detailed management plan required for approval of constructed treatment project

DRAFT
California Nonpoint Source
Program
Five-Year Implementation Plan
July 2003 Through June 2008

SWRCB/CCC

June 26, 2003



Overview

- Required under CWA Section 319 (NPS)
- Required under CZMA 1990
- Presents specific objectives
- Provides management measures (MM)
- Guidance provided for wetlands (MM6)

Management Measure 6A

- Promotes protection of wetlands/riparian areas
- Primary purpose is to protect the existing water quality improvement functions of wetlands/riparian areas

Management Measure 6B

- Promotes restoration of wetlands/riparian areas
- Specifically calls for restoration of damaged or destroyed wetland and riparian areas to significantly abate polluted runoff

Management Measure 6C

- Promotes vegetated treatment systems
- Vegetated treatment system defined as:
 - *Artificial wetlands*
 - *Constructed wetlands*

Objectives

1. Identify and incorporate wetland protection management practices to protect wetlands from NPS pollution.
2. Promote and assist the incorporation of wetlands and riparian habitat protection into local planning processes.
3. Work with IACC agencies, whose activities affect the health or function of wetland/riparian areas, to develop agency specific wetland/riparian protection policies.
4. Develop or modify and enforce wetland restoration standards on all restoration and mitigation projects.
5. Develop and promote a consistent means of evaluating and guiding riparian and wetland projects.

Objectives

6. Fund wetland/riparian restoration projects on a watershed basis.
7. Streamline the permitting process to enable swift measures for eradicating invasive species.
8. Evaluate efficacy of VTSs for different categories of pollutants.
9. Develop public education and outreach materials for distinguishing between habitat wetlands and VTSs, and detailing the regulatory maze and requirements for habitat wetlands and VTSs.
10. Develop educational planning workshop and/or outreach materials for locally elected officials, and landowners, managers, developers, and operations whose activities present threats to wetland/riparian areas.
11. Broaden partnership, coordination, and public participation in streambank and wetland monitoring and restoration projects.

NPS Plan - Example Project

- Augustus B. Hawkins Wetlands
- Within City of Los Angeles
- Constructed Treatment Wetland
 - *Freshwater*
 - *Native vegetation*
- Capture and treat urban/stormwater runoff
- Address trash and nutrient TMDL
- Provide wildlife habitat and flood control

Potential Confusion

- Relevant regulations
 - *Emphasis on protection of natural wetlands*
- NPS Program – Implementation Plan
 - *Promotes existing wetlands for treatment use*
- RWQCB – Region II
 - *Policy for constructed treatment wetlands*
- Other RWQCBs
 - *No established policy*

Coastal Act - Wetlands

- Limits development in wetlands to eight allowable uses
- Section 30233 states that development within wetlands shall maintain or enhance the functional capacity
- Section 30240 states that environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values.
- Section 30240 states that development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas.

Procedural Guidance For The Review of Wetland Projects in California's Coastal Zone

CCC

June 15, 1994



Procedural Guidance For Evaluating Wetland Mitigation Projects in California's Coastal Zone

CCC

September 1995



Procedural Guidance Manual

Addressing Polluted Runoff in the
California Coastal Zone

CCC

June 1996



Endangered Species Act

- Covers ALL endangered/threatened species
 - *No limitations within treatment systems*
- No temporal constraints on ESA
 - *Wildlife use or habitat establishment after construction would fall under ESA*
- Allows for exemptions and exceptions
 - *Could allow exclusion for future wildlife use or habitat establishment*

Fish And Game Code

- Section 1600 Streambed Alteration Agreement
- Required if a project will:
 - *Divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake which provides an existing fish or wildlife resource or from which these resources derive benefit.*

Thank You!

Discussion and Question/Answer

